each arm of a six-rayed spicule is applied to the corresponding arm of a neighbouring spicule, both spicules thus becoming enclosed by a common siliceous covering. The connected skeletons of the DICTYONINA consist of a lattice-work with irregularly cubic meshes. Spicules belonging to the soft parts may be present or absent.

"In many sponges which, according to the rest of their organisation, belong without doubt to Zittel's 'Dictyoninen,' I have failed to observe that union of neighbouring spicules by the enclosure of the corresponding approximated branches in a common siliceous coating, which he mentions; on the contrary I found in these cases the spicules

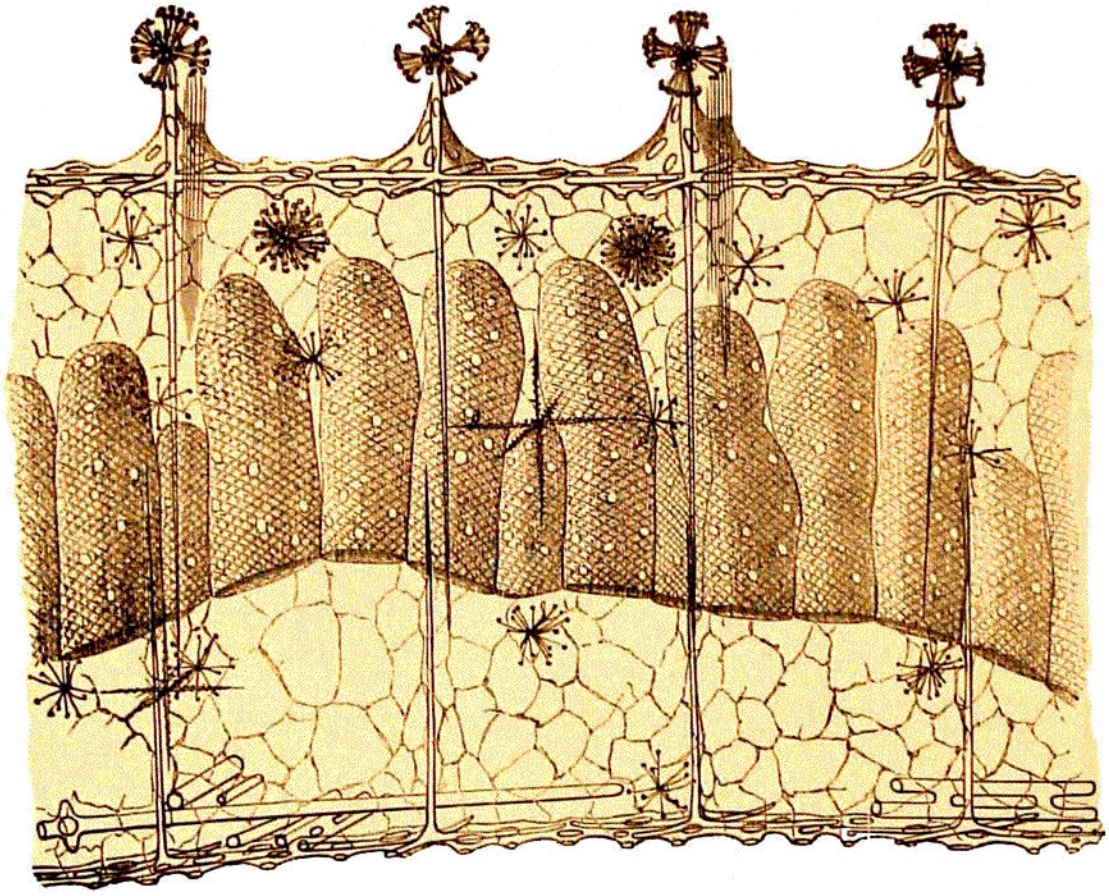

FIG. 167.—Section of the wall of *Walteria flemmingii*, n. gen. et sp., a representative of the Euplectellidæ $(\frac{70}{1})$.

either united crossing each other quite irregularly or disposed in a different manner, which also has been already observed by Oscar Schmidt and Zittel; that is to say, the rays of the spicules were fused with other spicules in the angles between their rays, and thus united into a firm skeleton.

"On the other hand, in not a few LYSSACINA, I have, like Oscar Schmidt, met with a firm union of spicules of a particular kind, sometimes in a very irregular disposition, sometimes by lateral soldering, sometimes of closely approximated parallel spicules connected by transverse pieces (synapticulæ); this may take place only in the basal portion